

UNION

TOOL COMPANY
ORANGE, MASSACHUSETTS, U.S.A.

Fast movers—

Makers of Machinist's Tools of
the **FINEST QUALITY**



UNION TOOL COMPANY

ORANGE, MASS., U. S. A.



EVERY TOOL SHOWN IN THIS CATALOG REPRESENTS THE
RESULTS OF OUR EFFORTS SINCE 1908 TO PRODUCE
TOOLS THAT WILL CONVINCE DISCRIMINATING
MECHANICS OF THEIR SUPERIORITY IN

... Accuracy ^{A_ND} Quality ...

FOUND IN ALL UNION TOOLS

WE INVITE COMPARATIVE CRITICISM

Ask the Mechanics who use them

ENGLISH MEASURE GRADUATIONS

These Rules are divided into parts of inches as follows:

No. 4 Graduation

| | |
|---------------|----|
| One Edge..... | 8 |
| One Edge..... | 16 |
| One Edge..... | 32 |
| One Edge..... | 64 |

No. 5 Graduation

| | |
|---------------|-----|
| One Edge..... | 32 |
| One Edge..... | 64 |
| One Edge..... | 10 |
| One Edge..... | 100 |

No. 7 Graduation

| | |
|---------------|-----|
| One Edge..... | 16 |
| One Edge..... | 32 |
| One Edge..... | 64 |
| One Edge..... | 100 |

No. 10 Graduation

| | |
|---------------|----|
| One Edge..... | 32 |
| One Edge..... | 64 |

No. 11 Graduation

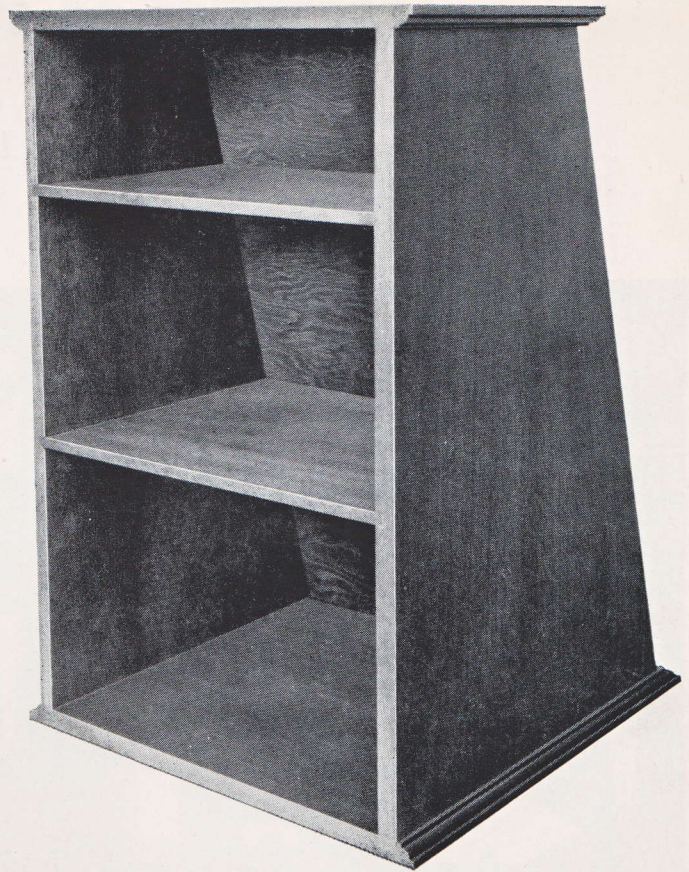
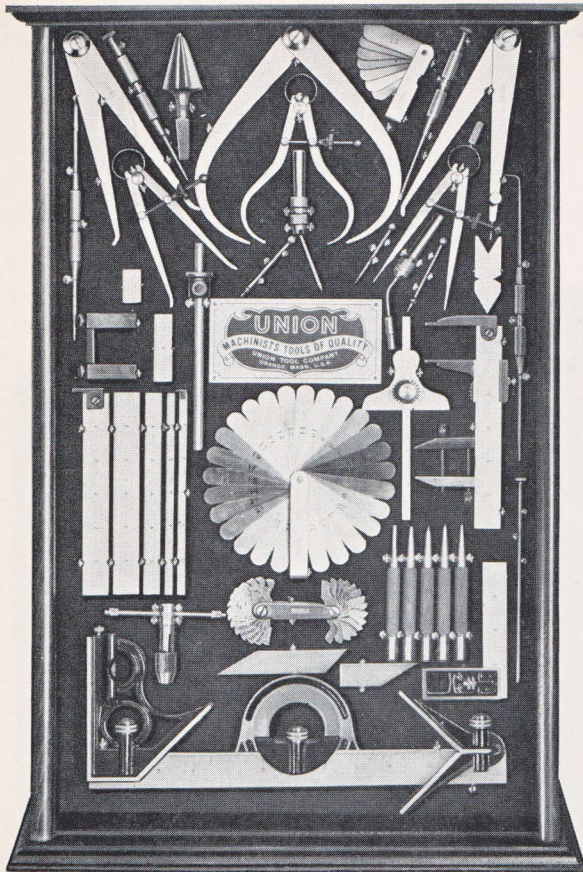
| | |
|---------------|-----|
| One Edge..... | 64 |
| One Edge..... | 100 |

No. 16 Graduation

| | |
|---------------|-----|
| One Edge..... | 32 |
| One Edge..... | 64 |
| One Edge..... | 50 |
| One Edge..... | 100 |



A "SILENT SALESMAN" THAT WILL SELL MACHINIST'S TOOLS FOR YOU



This "Union Tool" Display Cabinet FURNISHED FREE

Dealers are charged only for tools mounted on Display Board in Cabinet. Each Display contains a representative showing of tools listed below. Identification Button with Tool number appears next to each item.

Cabinet is 24" high and 16" wide by 10" deep at bottom, with ample storage room in back.

Made from Philippine Mahogany, nicely finished. Shipping weight 35 lbs.

Why not let this Display help increase your Sales?

LIST OF TOOLS IN DISPLAY CABINET

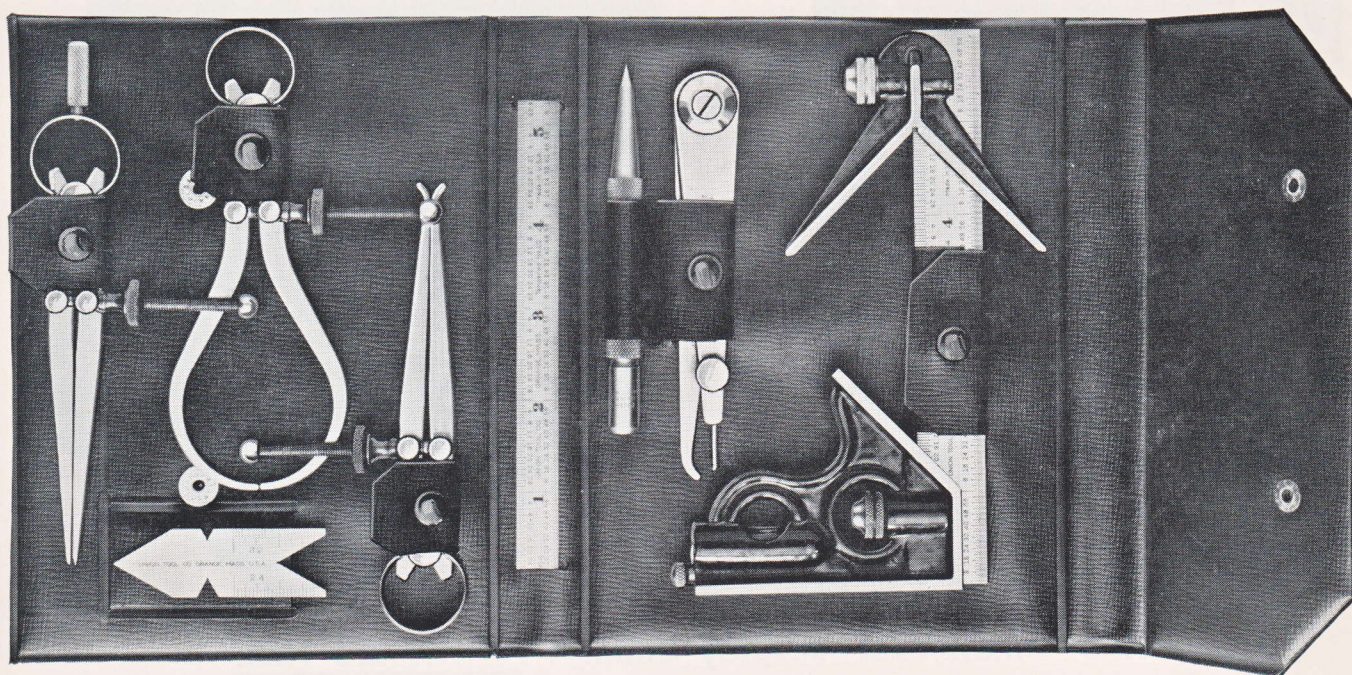
1 only of each of the following tools—mounted on display board:

| SIZE | TOOL | SIZE | TOOL |
|-----------|------------------------------|-----------|--------------------------------------|
| No. 615 | 12" Combination Set | No. 324 | Toolmakers Screwdriver |
| No. 401 | 6" Wide Hook Rule | No. 326 | Wiggler or Center Finder |
| No. 431 | 6" Narrow Hook Rule | No. 327 | Wiggler or Center Finder |
| No. 405 | 6" Tempered Rule-#16 Grad. | No. 625 | 4" Double Adjustable Square Complete |
| No. 425 | 6" Flexible Rule | No. 405 | 2" Tempered Rule |
| No. 430 | 6" Tempered Rule | No. 322 | Scriber and Packing Hook |
| No. 25-O | Tap Wrench | No. 310 | Rule Block, Key Seat |
| No. 50 | Thread Gauge | No. 300-C | Thickness Gauge |
| No. 300-D | Thickness Gauge | No. 550 | Clamps |
| No. 12 | 4" Outside Caliper | No. 453 | Slide Caliper Rule |
| No. 14 | 4" Inside Caliper | No. 331 | Depth Gauge |
| No. 10 | 4" Divider | No. 26 | Reamer |
| No. 17 | 6" Inside Firm Joint Caliper | No. 30-C | Nail Set |
| No. 19 | 6" Hermaphrodite Caliper | No. 32-C | Center Punch |
| No. 321 | Scriber | No. 34-C | Drive Taper Punch |
| No. 405 | 1" Tempered Rule | No. 36-C | Prick Punch |
| No. 320 | Single Point Scriber | No. 38-C | Drive Pin Punch |
| No. 444 | Scratch Gauge | No. 441 | Center Gauge |
| | | No. 15 | 6" Outside Firm Joint Caliper |

Note: We will gladly make up special display boards or decorate boards furnished by the customer with charge being made for tools only.

APPRENTICE OR STUDENT TOOL KIT

No. 1000



This kit is ideally suited for use by Students or Apprentices who are learning the Machinist Trade. Quality and Accuracy are found in all tools. The case is made of durable plastic, in a small handy size. Included in the kit are:

- | | |
|--|--|
| <p>1 No. 600—6" Comb. Sq. with C. H.</p> <p>1 No. 441 Center Gauge</p> <p>1 No. 10 —4" Spring Divider</p> <p>1 No. 12 —4" Outside Sp. Caliper</p> <p>1 No. 14 —4" Inside Sp. Caliper</p> | <p>1 No. 19 —4" Herm. Caliper</p> <p>1 No. 425—6"</p> <p>1 No. 32 C</p> <p>1 Tool Case</p> |
|--|--|

Weight, each 20 oz.

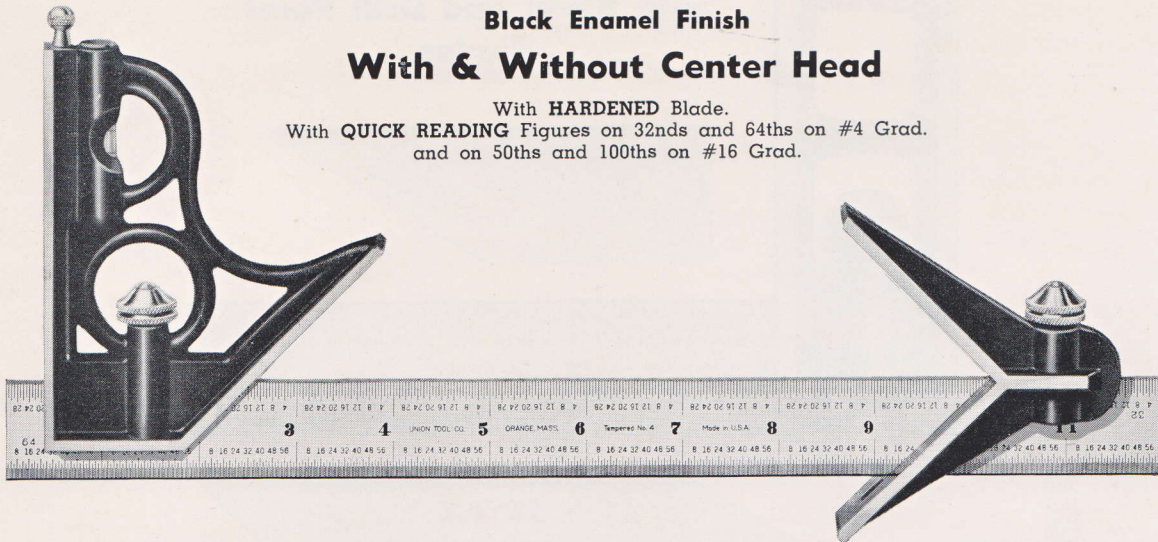
UNION MACHINIST'S COMBINATION SQUARE No. 600

Black Enamel Finish

With & Without Center Head

With **HARDENED** Blade.

With **QUICK READING** Figures on 32nds and 64ths on #4 Grad.
and on 50ths and 100ths on #16 Grad.



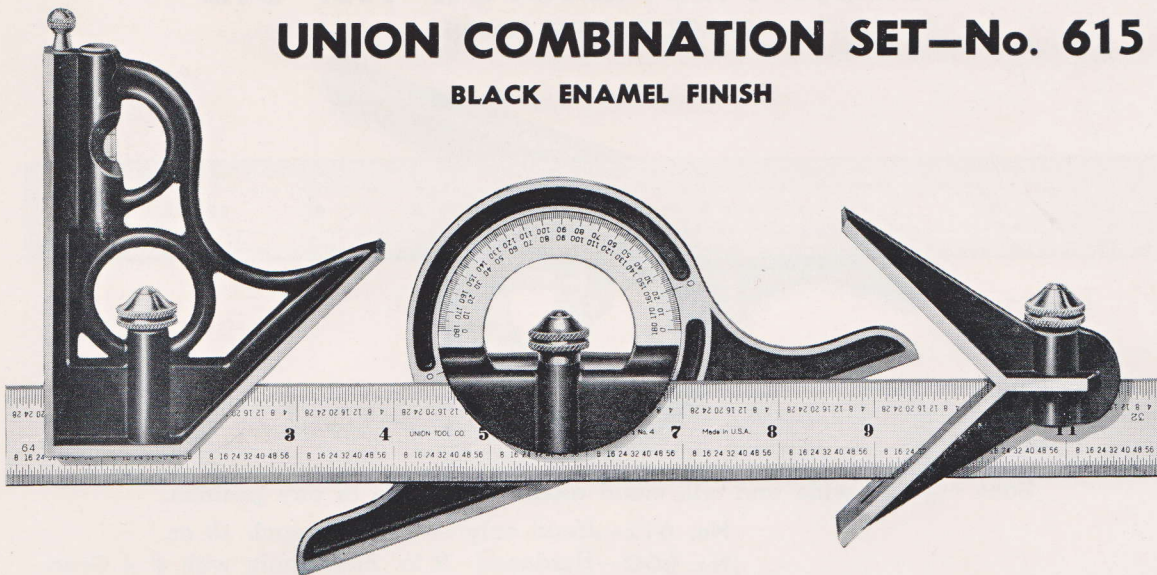
| Size |
|-----------------------|
| 4 in. with # 4 Grad. |
| 4 in. with #16 Grad. |
| 6 in. with # 4 Grad. |
| 6 in. with #16 Grad. |
| 9 in. with # 4 Grad. |
| 12 in. with # 4 Grad. |
| 12 in. with #16 Grad. |
| 15 C/M METRIC |
| 30 C/M METRIC |

| Weight, each Without Center Head |
|-------------------------------------|
| 5 oz. |
| 5 oz. |
| 5½ oz. |
| 5½ oz. |
| 9 oz. |
| 13 oz. |
| 13 oz. |
| 5½ oz. |
| 13 oz. |

| Weight, each With Center Head |
|----------------------------------|
| 7 oz. |
| 7 oz. |
| 8½ oz. |
| 8½ oz. |
| 12½ oz. |
| 18 oz. |
| 18 oz. |
| 8½ oz. |
| 18 oz. |

UNION COMBINATION SET—No. 615

BLACK ENAMEL FINISH



COMBINATION SET—No. 615

--: CONSISTING OF --:

Square Head, Center Head, Protractor and **HARDENED** Blade.
With **QUICK READING** Figures on 32nds and 64ths on #4 Grad.
and on 50ths and 100ths on #16 Grad.

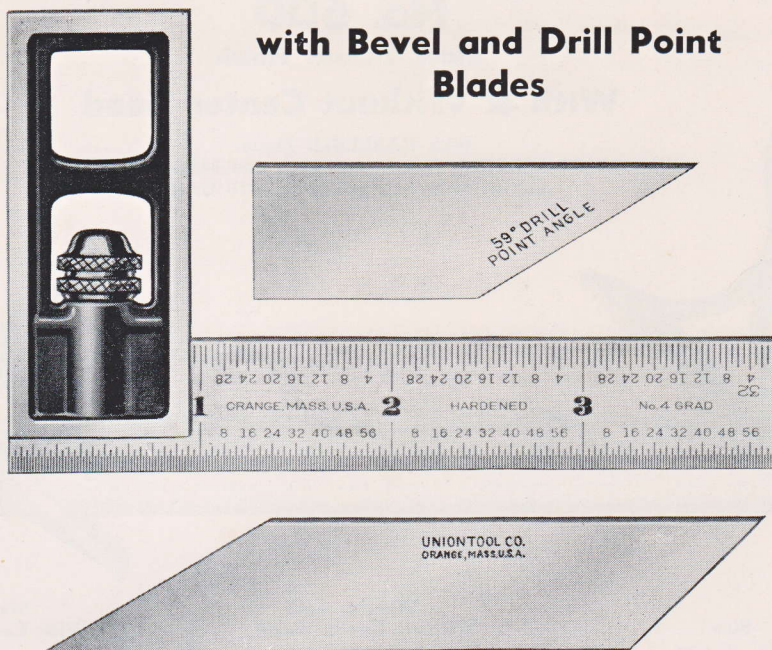
| |
|-------------------------------|
| No. 615—9 in. with # 4 Grad. |
| No. 615—12 in. with # 4 Grad. |
| No. 615—12 in. with #16 Grad. |
| No. 615—30 C/M— METRIC |

| |
|----------------------|
| Weight, each 1½ lbs. |
| Weight, each 2 lbs. |
| Weight, each 2 lbs. |
| Weight, each 2 lbs. |

All Packed 1 in a box.

Parts for Tools on This Page May Be Purchased Separately.

UNION DOUBLE ADJUSTABLE SQUARE—No. 625



Furnished with #4 and #16 Graduations with **QUICK READING** Figures on 32nds and 64ths on #4 Grad. and 50ths and 100ths on #16 Grad.

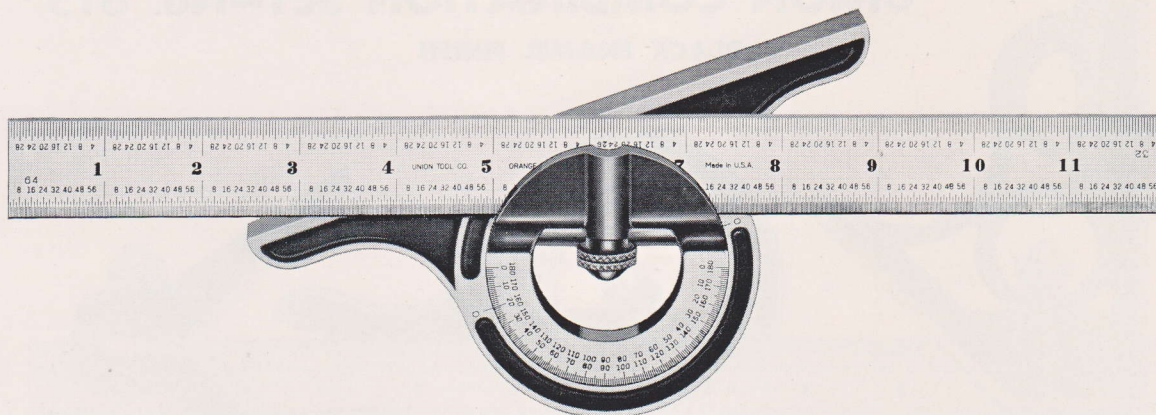
Will ship complete if not specified otherwise.

| Size |
|-------------------|
| 4" with # 4 Grad. |
| 4" with #16 Grad. |
| 6" with # 4 Grad. |
| 6" with #16 Grad. |

| Weight each, complete |
|-----------------------|
| 5 oz. |
| 5 oz. |
| 6 oz. |
| 6 oz. |

UNION PROTRACTOR—No. 612

BLACK ENAMEL FINISH



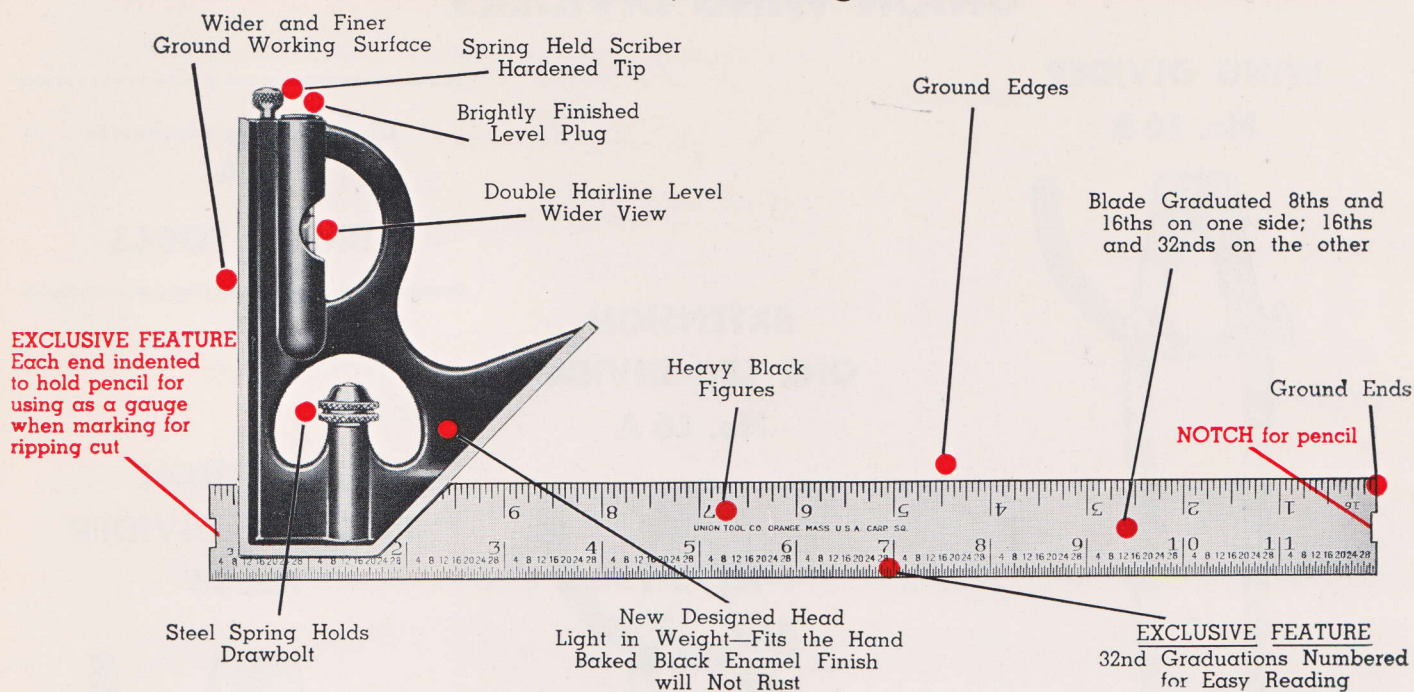
Base $2\frac{5}{32}$ in. wide and will stand alone with blade in any position.

| | |
|--|---|
| ABOVE PROTRACTOR CAN BE FURNISHED WITH EITHER OUR | No. 612—Head only — Weight, each 15 oz. |
| | No. 600—Hardened 9 in. Blade only with # 4 Grad. |
| | No. 600—Hardened 12 in. Blade only with # 4 Grad. |
| | No. 600—Hardened 12 in. Blade only with #16 Grad. |
| | No. 600—Hardened 30 C/M METRIC Blade only |

The blade is held firmly at any point desired by a thumb nut. Turret is graduated in degrees from 0 to 180° both right and left, and revolves 360°. The protractor is reversible and universal. Double reading line permits universal, or reading from both sides. The level on the back of the turret makes an excellent inclinometer, and can be used without removing the blade.

Packed 1 in a box.

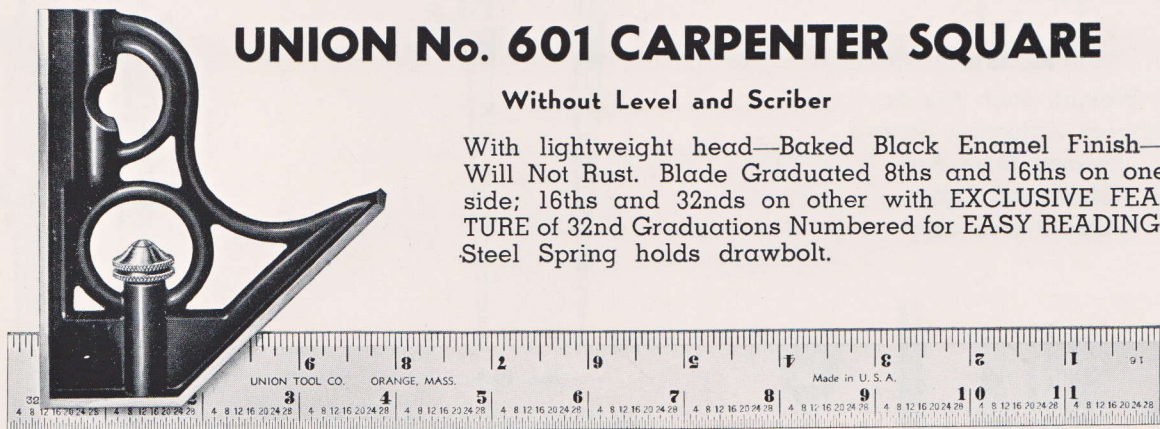
The UNION No. 602 *Easy Reading* CARPENTER SQUARE



12 inch size only also supplied in **ENGLISH** and **METRIC**

Weight, each 12 oz.

{ Packed 1 in a box
20 to a carton



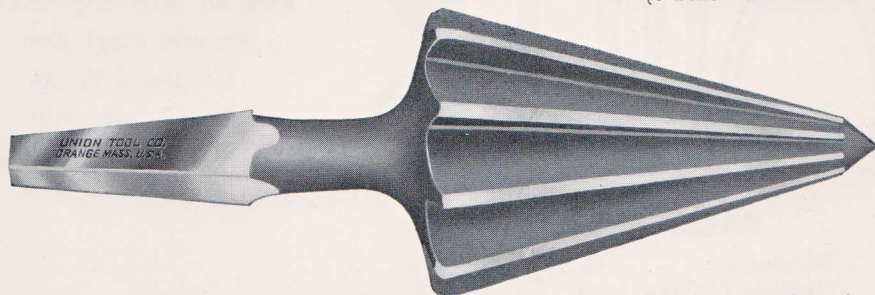
12 inch size only

Weight, each 8½ oz.

{ Packed 12 in a box.
3 boxes in a carton.

SPECIAL ALLOY PIPE BURRING REAMER

WILL LAST TWICE AS LONG



These reamers offer the most rapid method of removing the burr caused from cutting the ends of water pipes, and electric conduit. Water pipe capacity is nearly doubled by removing this burr. If the burr is not removed from electric conduit the insulation will be damaged. A time saving tool for Plumbers, Electricians, Tinsmiths and Carpenters.

No. 26 Reams pipes ⅛ in. to 1 in. Wt., each 6 oz.—**No. 27** Reams pipes ⅛ in. to 1¼ in. Wt., each 8 oz.

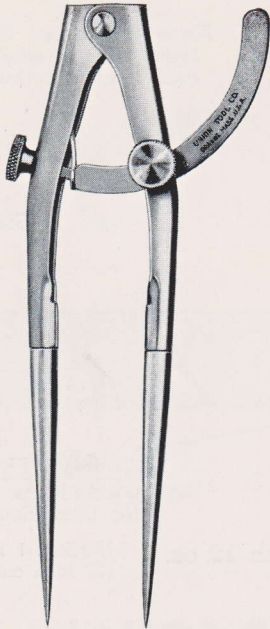
No. 28 Reams Pipes ¼ in. to 2 in. Wt., each 24 oz.

Packed 1 in a box.

UNION WING DIVIDERS

WING DIVIDER

No. 16 B

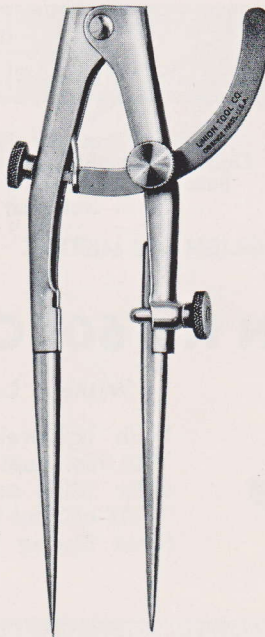


No. 16 B

Weight, each 4½ oz.
Knurled Adjusting Screws
Pressed Steel Arm
Hardened Points
Size 7 inch only

EXTENSION ONE LEG DIVIDER

No. 16 A

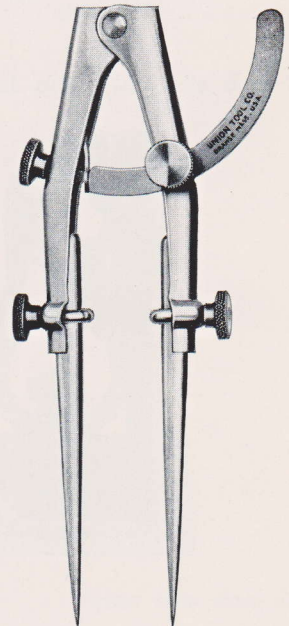


No. 16 A

Weight, each 4½ oz.
Adjustable for Pencil
Knurled Adjusting Screws
Pressed Steel Arm
Hardened Points
Size 7 inch only

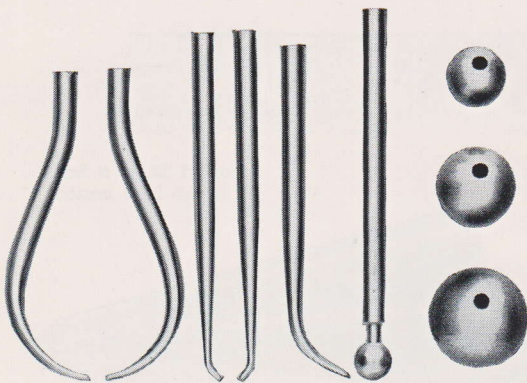
EXTENSION TWO LEG DIVIDER

No. 16



No. 16

Weight, each 4½ oz.
Adjustable for Pencil
Knurled Adjusting Screws
Pressed Steel Arm
Hardened Points
Size 7 inch only



BALLS AND LEGS

Divider legs
Outside Caliper legs
Inside Caliper legs
Special Bent Point
Ball holder
Balls
Set of 4 Ball points and holder
Size ½" ¾" 1" 1¼"

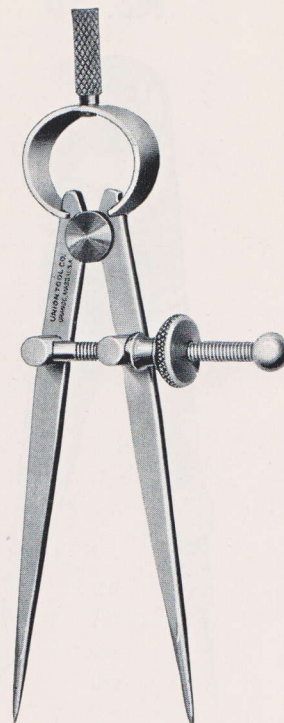
All Packed 6 in a box.

UNION SPRING CALIPERS AND SPRING DIVIDERS

All UNION Spring Dividers and Calipers made from High Carbon Steel.

SPRING DIVIDERS

No. 10



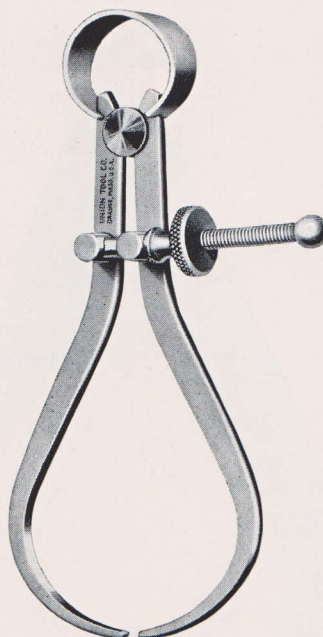
Hardened Points

| Size | Weight, each |
|-------|--------------|
| 2 in. | 1 oz. |
| 3 in. | 1¼ oz. |
| 4 in. | 1½ oz. |
| 5 in. | 2 oz. |
| 6 in. | 2½ oz. |
| 8 in. | 3½ oz. |

NOTE:—A leather Cap is furnished with each Spring Divider to protect points while carrying in pocket or in tool chest.

OUTSIDE SPRING CALIPER

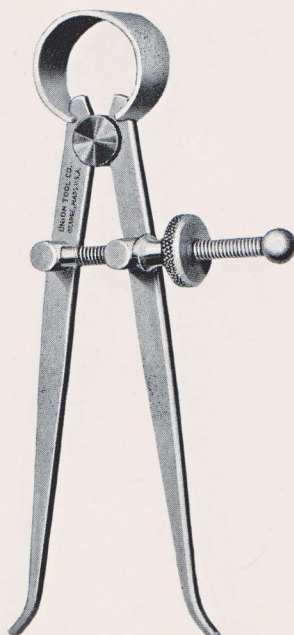
No. 12



| Size | Weight, each |
|-------|--------------|
| 2 in. | 1 oz. |
| 3 in. | 1¼ oz. |
| 4 in. | 1½ oz. |
| 5 in. | 2 oz. |
| 6 in. | 2½ oz. |
| 8 in. | 3½ oz. |

INSIDE SPRING CALIPER

No. 14



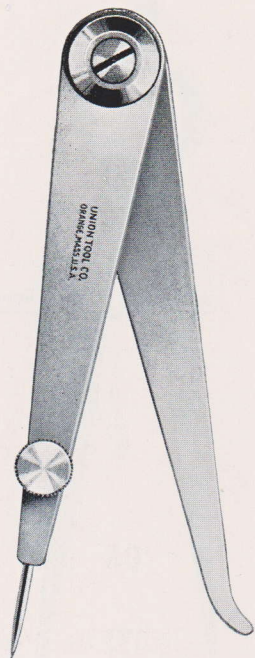
| Size | Weight, each |
|-------|--------------|
| 2 in. | 1 oz. |
| 3 in. | 1¼ oz. |
| 4 in. | 1½ oz. |
| 5 in. | 2 oz. |
| 6 in. | 2½ oz. |
| 8 in. | 3½ oz. |

Springs of all Union Spring Dividers and Calipers are accurately tempered.

All Packed 3 in a box

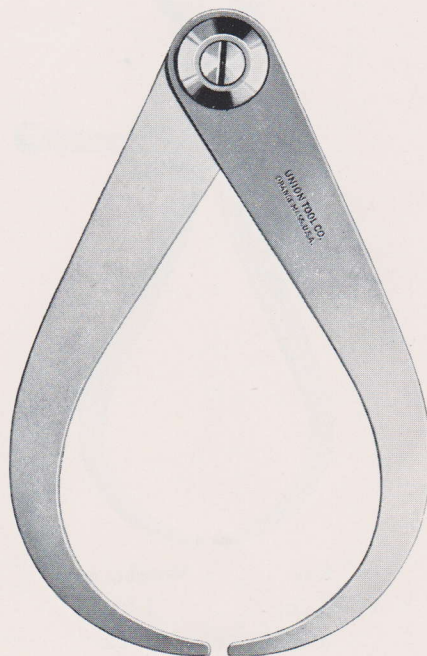
UNION FIRM JOINT CALIPERS

HERMAPHRODITE CALIPER No. 19



| Size | Weight, each |
|--------|--------------|
| 4 in. | 1 1/4 oz. |
| 6 in. | 2 1/2 oz. |
| 8 in. | 4 1/2 oz. |
| 10 in. | 7 oz. |
| 12 in. | 9 1/2 oz. |

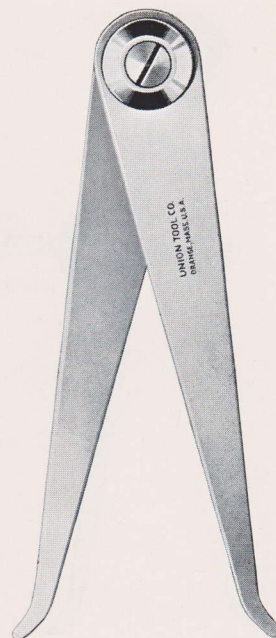
OUTSIDE FIRM JOINT CALIPER No. 15



| Size | Weight, each |
|--------|--------------|
| 4 in. | 2 oz. |
| 6 in. | 3 oz. |
| 8 in. | 5 oz. |
| 10 in. | 8 oz. |
| 12 in. | 11 1/2 oz. |

Adjustable Friction Joints insure perfect tension. Steel specially rolled to prevent springing.

INSIDE FIRM JOINT CALIPER No. 17



| Size | Weight, each |
|--------|--------------|
| 4 in. | 2 oz. |
| 6 in. | 3 oz. |
| 8 in. | 5 oz. |
| 10 in. | 8 oz. |
| 12 in. | 11 1/2 oz. |

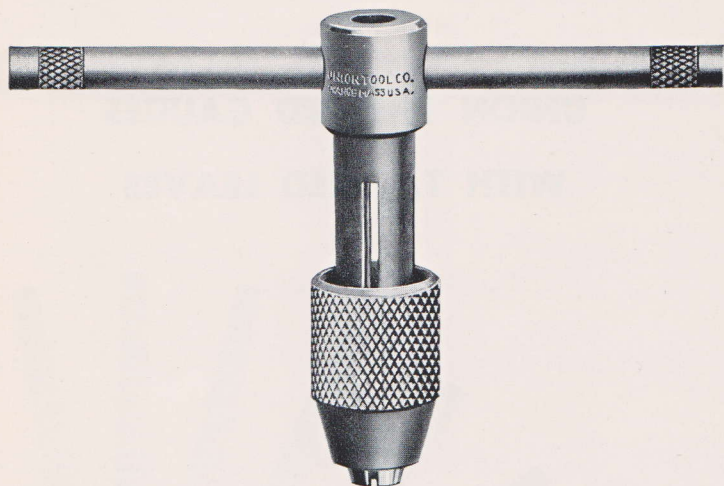
**YOU WILL ALWAYS FIND
ACCURACY
IN
UNION PRECISION TOOLS**

All Packed 3 in a box

UNION ADJUSTABLE TAP WRENCH

No. 25

With Hardened Jaws and Shell
Top centered for use on back center of lathe when reaming a hole in work that is revolved in a chuck.



No. 0 SIZE

Capacity No. 1 to No. 10 Machine Screw Taps.
Capacity $\frac{3}{32}$ in. (.0937) to $\frac{3}{16}$ in. (.1875) Standard Hand Taps.
Weight each, 2 oz.

No. 1 SIZE

Capacity No. 10 to No. 16 Machine Screw Taps.
Capacity $\frac{3}{16}$ in. (.1875) to $\frac{9}{32}$ in. (.2812) Standard Hand Taps.
Weight each, 4 oz.

No. 2 SIZE

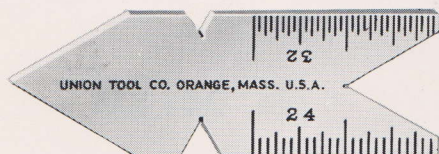
Capacity No. 14 to No. 20 Machine Screw Taps.
Capacity $\frac{9}{32}$ in. (.2812) to $\frac{1}{2}$ in. (.500) Standard Hand Taps.
Weight each, 7 oz.

All Three Sizes Packed 6 in a box.

UNION CENTER GAUGE

No. 441

Hardened and Tempered



Graduated, one corner each, 14th, 20th, 24ths and 32nds. 60 degree angles. Weight each, $\frac{1}{4}$ oz.

No. 441 Whitworth

55 degree angles Weight each, $\frac{1}{4}$ oz.

No. 441—METRIC

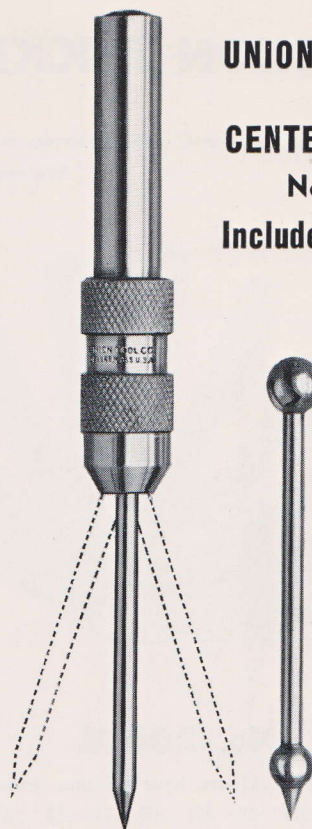
60 degree angles Weight each, $\frac{1}{4}$ oz.

Packed 12 in a box.

UNION WIGGLER OR CENTER FINDER

No. 326

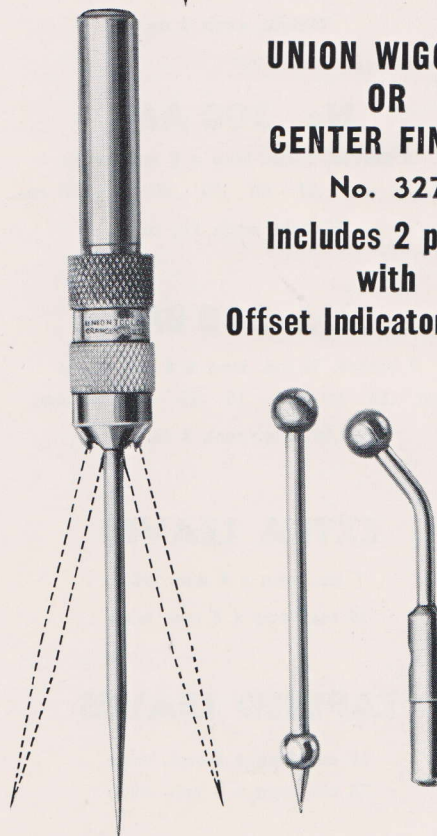
Includes 2 points



UNION WIGGLER OR CENTER FINDER

No. 327

Includes 2 points with Offset Indicator Holder



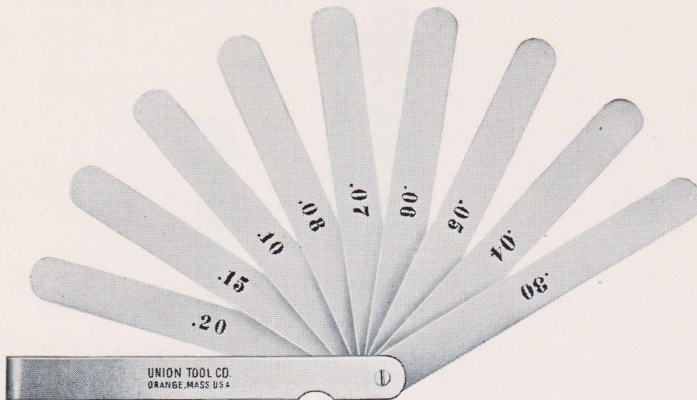
$\frac{3}{8}$ Inch Shank

Weight each, approximately 2 oz.
Handy in locating working points in milling and vertical machines.
Spring tension to insure perfect alignment with spindle.

Both packed 1 in a box.

UNION THICKNESS GAUGES—METRIC MEASURE

Finest spring tempered steel. Leaves will not swedge out like BRASS or SOFT STEEL which is commonly used in gauges.
 We can furnish extra leaves of any thickness and length.



No. 300 M

9 leaves, 11 cm. long x 8 mm. wide
 .04 .05 .06 .07 .08 .10 .15 .20 .30 mm.
 Weight, each 2 oz.

No. 300 AM

9 leaves, 7 cm. long x 8 mm. wide
 .04 .05 .06 .07 .08 .10 .15 .20 .30 mm.
 Weight, each 1½ oz.

No. 300 BM

8 leaves, 15 cm. long x 8 mm. wide
 .05 .06 .07 .08 .10 .15 .20 .30 mm.
 Weight, each 2 oz.

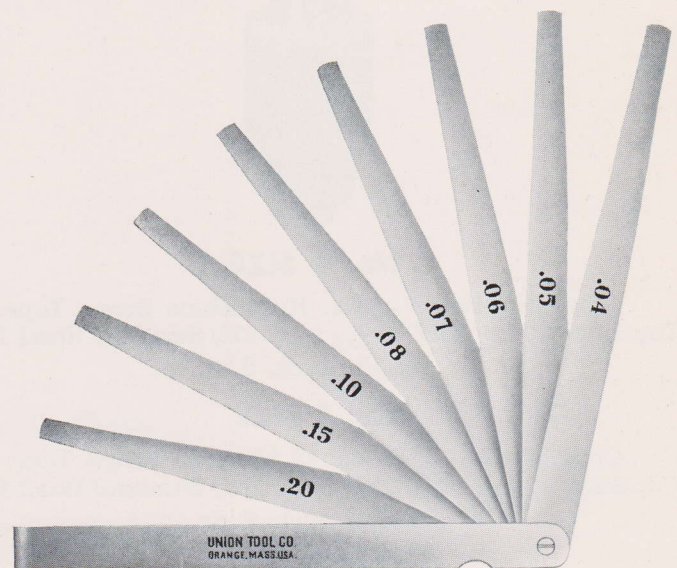
EXTRA LEAVES

7 cm. long x 8 mm. wide
 15 cm. long x 8 mm. wide

TAPERED LEAVES

11 cm. long x 8 mm. wide
 15 cm. long x 8 mm. wide

UNION TAPERED GAUGES WITH TAPERED LEAVES



No. 301 M

9 leaves, 11 cm. long x 8 mm. wide
 Same combination of leaves as No. 300 M
 Weight, each 2 oz.

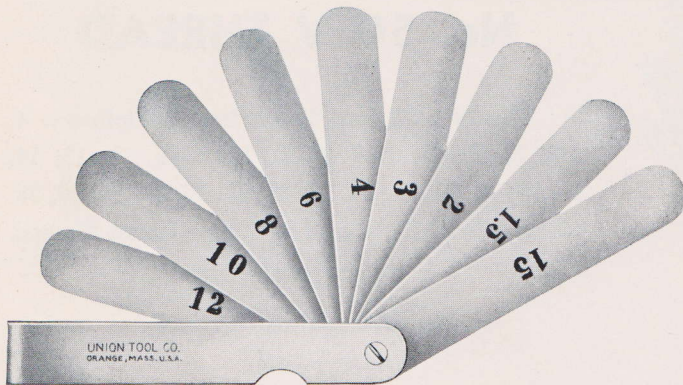
No. 301 BM

8 leaves, 15 cm. long x 8 mm. wide
 Same combination of leaves as No. 300 BM
 Weight, each 2 oz.

All packed 1 in a box.

UNION THICKNESS GAUGES

Finest spring tempered steel. Leaves will not swedge out like BRASS or SOFT STEEL which is commonly used in gauges.
We can furnish extra leaves of any thickness or length.



No. 300

9 Leaves, 4½ inches long x ½ inch wide.

| | | | | |
|-------|------|------|------|------|
| .0015 | .002 | .003 | .004 | .006 |
| .008 | .010 | .012 | .015 | |

Weight, each 2 oz.

No. 300 A

9 Leaves, 3¼ inches long x ½ inch wide.

| | | | | |
|-------|------|------|------|------|
| .0015 | .002 | .003 | .004 | .006 |
| .008 | .010 | .012 | .015 | |

Weight, each 1½ oz.

No. 300 B

8 Leaves, 6 inches long x ½ inch wide.

| | | | |
|------|------|------|------|
| .002 | .003 | .004 | .006 |
| .008 | .010 | .012 | .015 |

Weight, each 2 oz.

No. 300 C

7 Leaves, 2¼ inches long x ½ inch wide.

| | | | |
|------|------|------|------|
| .002 | .003 | .004 | .005 |
| .008 | .010 | .015 | |

Weight, each 1 oz.

No. 300 E

8 Leaves, 9 inches long x ½ inch wide.

| | | | |
|------|------|------|------|
| .002 | .003 | .004 | .006 |
| .008 | .010 | .012 | .015 |

Weight, each 4 oz.

Above packed 1 in a box.

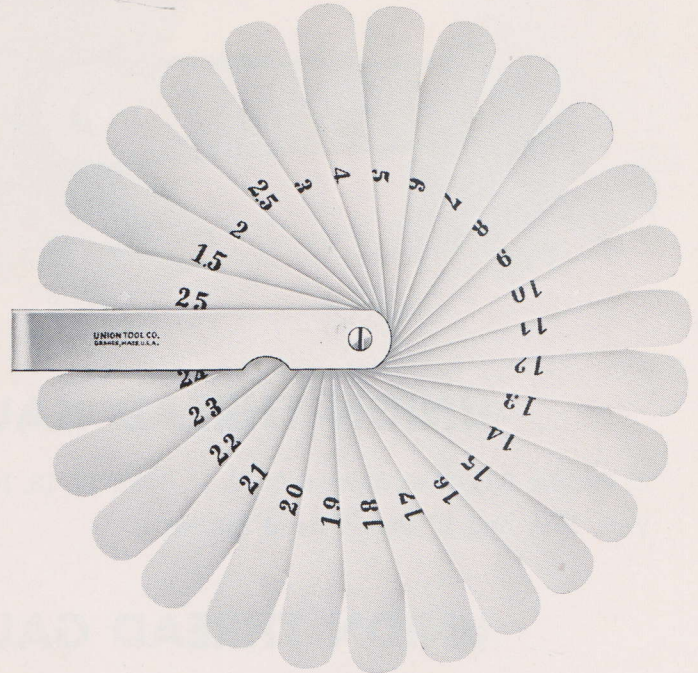
No. 300-S FEELER GAUGE STOCK

12 inch lengths — Rounded ends.

Thickness etched on each piece.

**AVAILABLE IN SAME RANGE OF THICKNESSES
AS ON 300 D GAUGE ABOVE.**

Packed 12 in a box.



No. 300 D

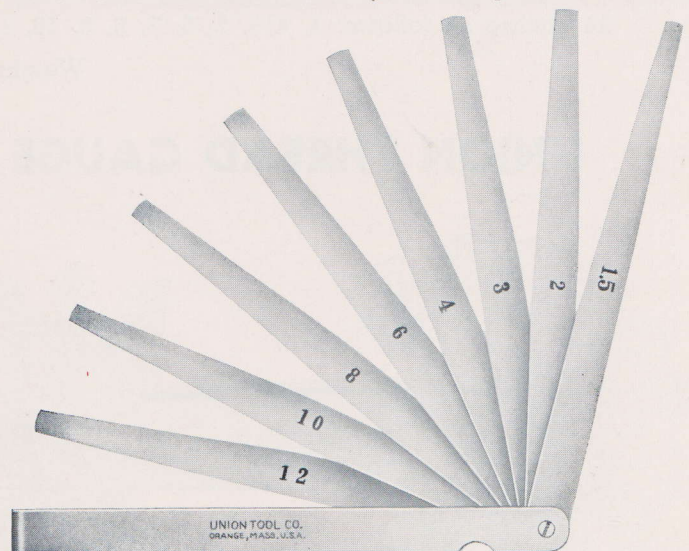
26 Leaves, 3¼ inches long x ½ inch wide.

Range includes .0015 to .025 inclusive with .0025 leaf.

Weight, each 3 oz.

Packed 1 in a box.

UNION TAPER GAUGE, with Tapered Leaves

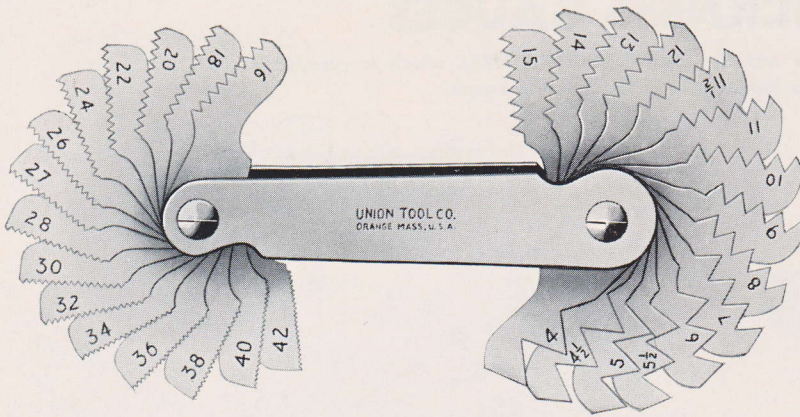


No. 301 9 Leaves, 4½ inches long x ½ inch wide. Same combination of leaves as No. 300. Weight, each 2 oz.

No. 301 B 8 Leaves, 6 inches long x ½ inch wide. Same combination of leaves as No. 300 B. Weight, each 2 oz.

No. 301 E 8 Leaves, 9 inches long x ½ inch wide. Same combination as No. 300 E. Weight, each 4 oz.

All Packed 1 in a box.



UNION THREAD GAUGE

No. 50 V THREAD

The No. 50 has 30 pitches, as follows: 4, 4½, 5, 5½, 6, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42. With 11½ and 27 Pipe Thread Pitches.

Weight each, 2 oz.

UNION THREAD GAUGE No. 51 V THREAD

22 Pitches, 9 to 40 as follows: 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40. With 11½ and 27 Pipe Thread Pitches.

Weight each, 2 oz.

UNION THREAD GAUGE No. 52 V THREAD

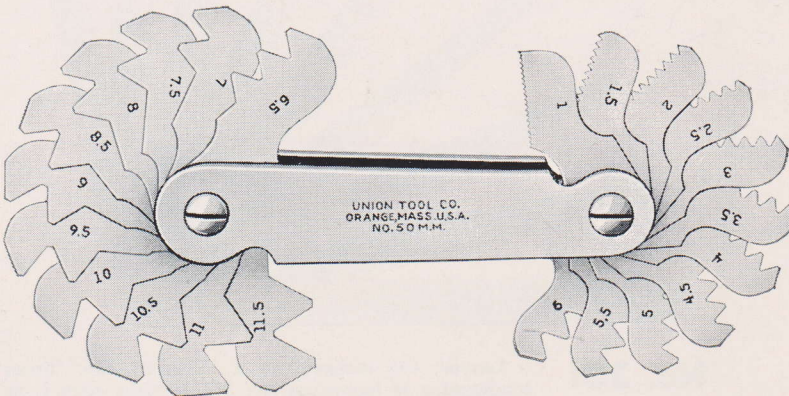
30 Pitches, 6 to 60 as follows: 6, 7, 8, 9, 10, 11, 11½, 12, 13, 14, 15, 16, 18, 20, 22, 24, 26, 27, 28, 30, 32, 34, 36, 38, 40, 42, 48, 50, 56, 60. With 11½ and 27 Pipe Thread Pitches.

Weight each, 2 oz.

UNION THREAD GAUGE No. 50 W WHITWORTH THREAD

24 pitches as follows: 4, 4½, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16, 18, 19, 20, 22, 24, 25, 26, 28, 30, 32, 40, 48. Weight each, 2 oz.

UNION THREAD GAUGE No. 50 M METRIC THREAD



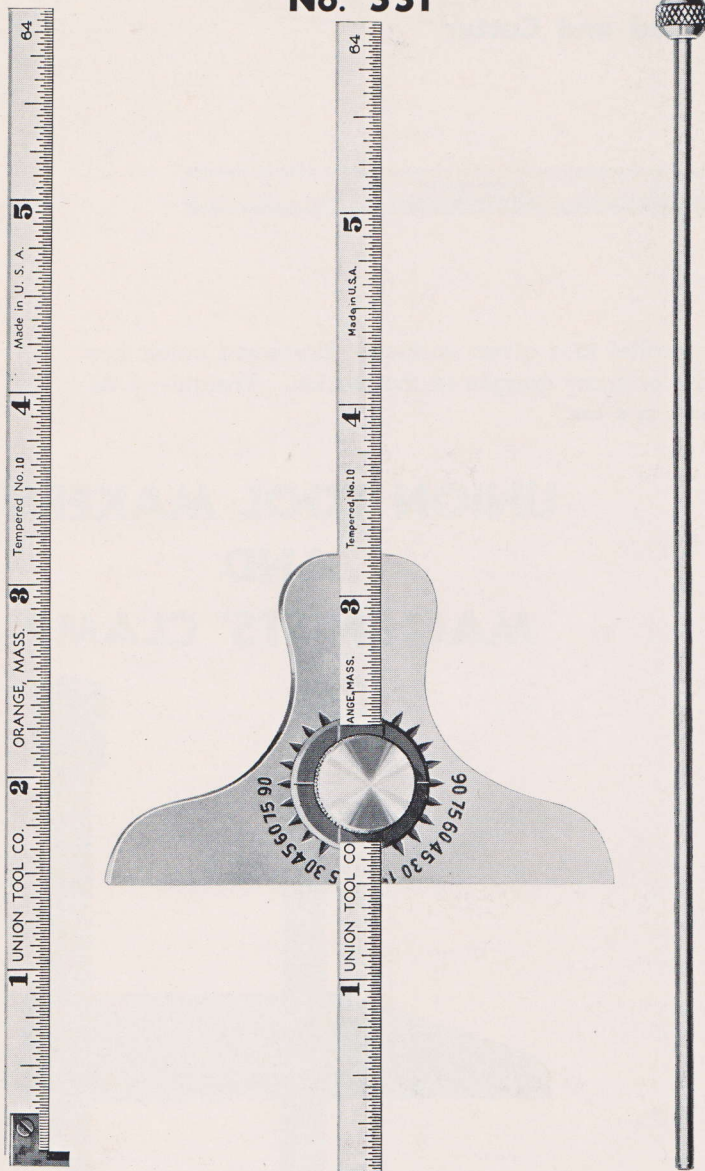
The gauge has 22 pitches as follows: 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 5.5, 6, 6.5, 7, 7.5, 8, 8.5, 9, 9.5, 10, 10.5, 11, 11.5.

Weight each, 3 oz.

All packed 1 in a box.

NOTE: On all UNION Thread Gauges every leaf has a full length of teeth and each blade has a full end tooth.

ADJUSTABLE ANGLE DEPTH GAUGE No. 331



This gauge is designed to give a much greater range of angles.

The head is marked on both sides of the adjusting stud as follows: 15, 30, 45, 60, 75, and 90 degrees.

To obtain the angle wanted, turn nut to the left about $\frac{1}{4}$ turn and turn the rule until line on washer matches the desired degree, or angle and the indexing finger on the washer will drop into a slot, and adjust the rule to the correct position. Then tighten nut and the tool is ready for use.

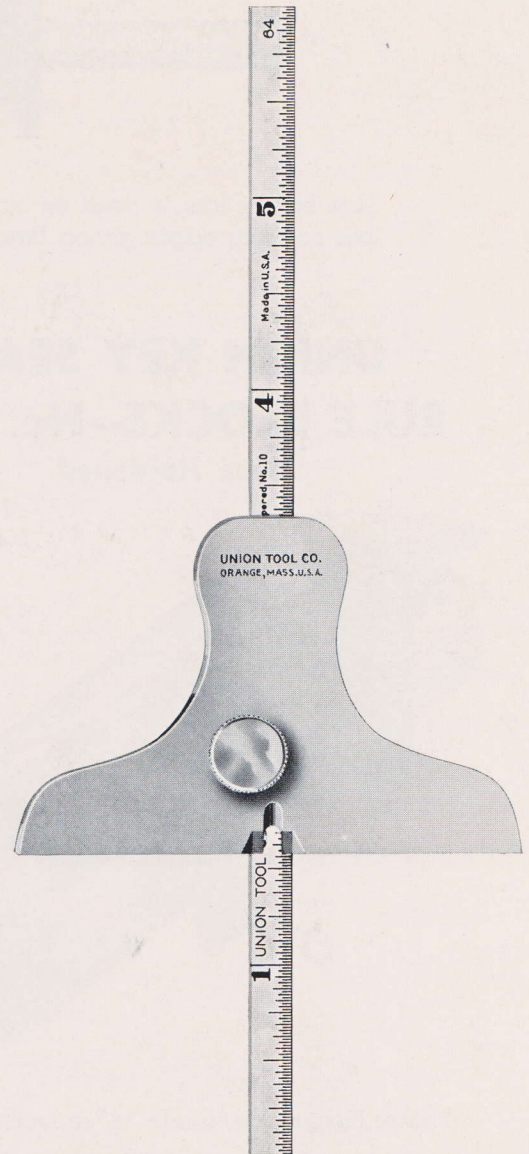
For measuring holes too small for the rule, we furnish a rod 6 in. long and $\frac{3}{32}$ in. diameter, see cut. Simply release adjusting nut, remove the rule, insert rod in milled groove and tighten nut as before.

Our No. 431 Hook Rule can be used with this gauge, making a very satisfactory caliper rule. This tool is a necessity for every toolmaker and machinist, and also very handy for carpenters for marking mitres. Should you desire to slide rule to a different length, release and slide rule to the desired length and then tighten nut. This operation will not change the angle, as the indexing finger is holding the rule at the desired angle while making the change.

With Case Hardened Base

- | | |
|-----------------------|---|
| No. 331 | Complete with 6 in. rule and 6 in. rod |
| No. 430 | 6 in. Narrow Tempered Rule—# 4 Grad. |
| No. 430 | 6 in. Narrow Tempered Rule—#11 Grad. |
| No. 431 | 6 in. Narrow Hook Rule—# 4 Grad. |
| No. 431 | 6 in. Narrow Hook Rule—#11 Grad. |
| No. 331 | 6 in. Rod |
| No. 331 METRIC | Complete with 15 C/M rule and 15 C/M rod. |
| | Weight each, 2 oz. Packed 1 in a box. |

UNION DEPTH GAUGE 90-DEGREE ANGLE DEPTH GAUGE No. 330



This Depth Gauge has a case hardened steel base with a 2½-inch work face accurately ground 90-degree angle to the slot in which the 6-inch rule slides.

Rule graduated 32nds one side, 64ths on other, also supplied in 64ths and 100ths.

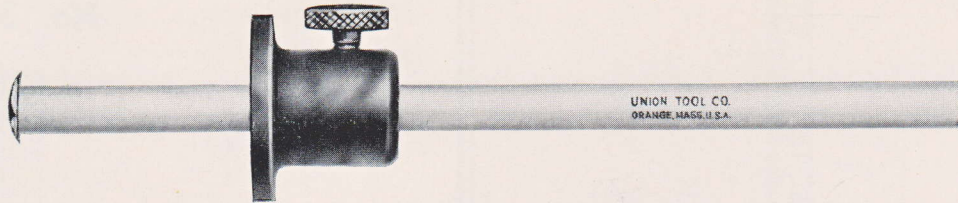
Weight each, 1½ oz. With 6-inch rule.

Also No. 330 METRIC with 15C/M Rule

Packed 1 in a box.

UNION SCRATCH GAUGE—No. 444

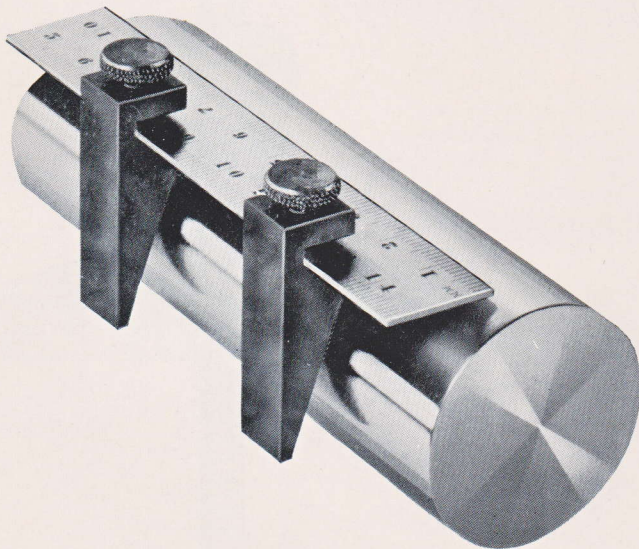
Hardened Head and Cutter



This handy tool is used for scribing lines parallel to a given surface. Hardened cutter has four scribing edges giving three times the life of many gauges on the market. Weight—4 oz.
Packed 1 in a box.

UNION KEY SEAT RULE BLOCKS—No. 310

Case Hardened

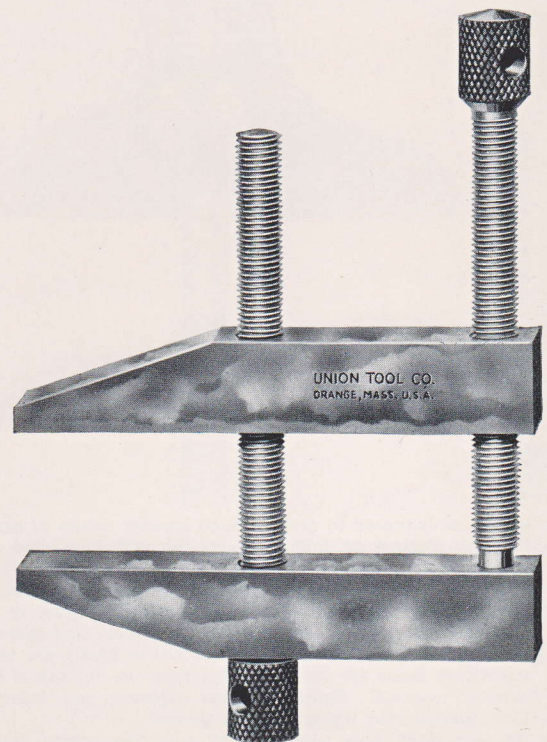


These Blocks are made to convert a Steel Rule, Straight Edge or Square Blade into a Key-Seat Rule, with which accurate keyways and parallel lines on shafts and cylinders may be laid out.

| | Size | Weight, 2 Blocks |
|----------------|-------------|------------------|
| No. 310 | 1½ in. long | 2½ oz. |

Packed 2 Blocks in a box.

UNION TOOL MAKERS' AND MACHINISTS' CLAMP



Case Hardened Steel Jaws

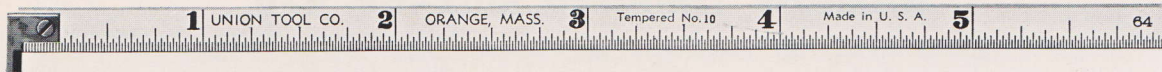
| | Size | Weight, each |
|----------------|-----------------------------|--------------|
| No. 550 | 1 in. Opening, 1¾ in. Jaws | 1½ oz. |
| No. 551 | 1¾ in. Opening, 2¾ in. Jaws | 5 oz. |
| No. 552 | 2½ in. Opening, 3½ in. Jaws | 11 oz. |

Packed 2 in a box.



NARROW TEMPERED HOOK RULE—No. 431

With Hardened Hook



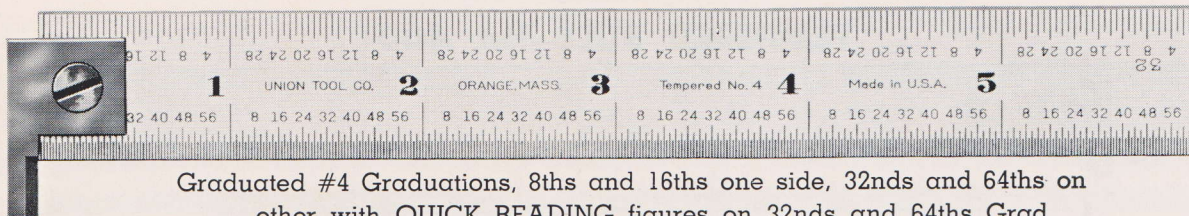
Graduated #10 Graduations, 32nds one side, 64ths on other.

| Length | Approx. Width | Weight, each | Length | Approx. Width | Weight, each |
|----------------------|--------------------|--------------------|-----------------------|--------------------|-------------------|
| 4 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{3}{16}$ oz. | 12 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{1}{2}$ oz. |
| 6 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{1}{4}$ oz. | 15 C/M METRIC | $\frac{7}{32}$ in. | $\frac{1}{4}$ oz. |
| 6 in. with #11 Grad. | $\frac{7}{32}$ in. | $\frac{1}{4}$ oz. | 30 C/M METRIC | $\frac{7}{32}$ in. | $\frac{1}{2}$ oz. |
| 9 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{3}{8}$ oz. | | | |

Packed 3 in a box.

TEMPERED HOOK RULE—No. 401

With Hardened Hook

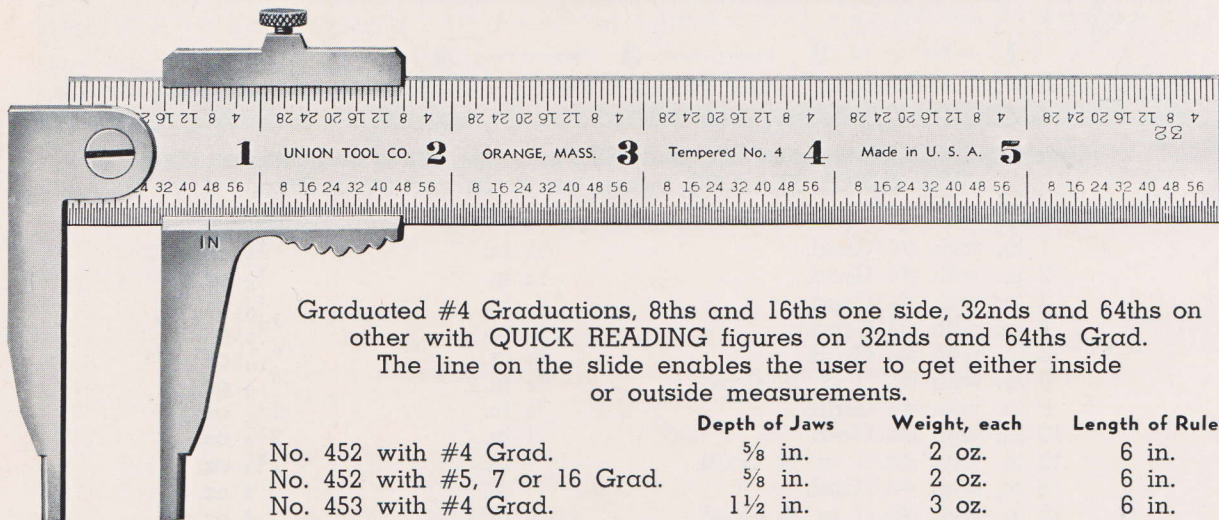


Graduated #4 Graduations, 8ths and 16ths one side, 32nds and 64ths on other with QUICK READING figures on 32nds and 64ths Grad.

| Length | Approx. Width | Weight, each | Length | Approx. Width | Weight, each |
|-------------------------------|-------------------|--------------------|-------------------------------|--------------------|--------------------|
| 6 in. with #4 Grad. | $\frac{3}{4}$ in. | 1 oz. | 18 in. with #4 Grad. | $1\frac{1}{8}$ in. | $4\frac{1}{2}$ oz. |
| 6 in. with #5, 7 or 16 Grad. | $\frac{3}{4}$ in. | 1 oz. | 18 in. with #5, 7 or 16 Grad. | $1\frac{1}{8}$ in. | $4\frac{1}{2}$ oz. |
| 9 in. with #4 Grad. | $\frac{7}{8}$ in. | $1\frac{3}{4}$ oz. | 24 in. with #4 Grad. | $1\frac{1}{4}$ in. | $6\frac{1}{8}$ oz. |
| 12 in. with #4 Grad. | 1 in. | $2\frac{7}{8}$ oz. | 24 in. with #5, 7 or 16 Grad. | $1\frac{1}{4}$ in. | $6\frac{1}{8}$ oz. |
| 12 in. with #5, 7 or 16 Grad. | 1 in. | $2\frac{7}{8}$ oz. | 15 C/M METRIC | $\frac{3}{4}$ in. | 1 oz. |
| | | | 30 C/M METRIC | 1 in. | $2\frac{7}{8}$ oz. |

Packed 3 in a box.

SLIDE CALIPER RULES—No. 452 and 453



Graduated #4 Graduations, 8ths and 16ths one side, 32nds and 64ths on other with QUICK READING figures on 32nds and 64ths Grad.

The line on the slide enables the user to get either inside or outside measurements.

| | Depth of Jaws | Weight, each | Length of Rule |
|--------------------------------|--------------------|--------------|----------------|
| No. 452 with #4 Grad. | $\frac{5}{8}$ in. | 2 oz. | 6 in. |
| No. 452 with #5, 7 or 16 Grad. | $\frac{5}{8}$ in. | 2 oz. | 6 in. |
| No. 453 with #4 Grad. | $1\frac{1}{2}$ in. | 3 oz. | 6 in. |
| No. 453 with #5, 7 or 16 Grad. | $1\frac{1}{2}$ in. | 3 oz. | 6 in. |
| No. 452 METRIC | $\frac{5}{8}$ in. | 2 oz. | 15 C/M |
| No. 453 METRIC | $1\frac{1}{2}$ in. | 3 oz. | 15 C/M |

Packed 1 in a box.

NOTE: #5 Graduation is 32nds and 64ths one side, 10ths and 100ths on other with QUICK READING figures on 10ths and 100ths Grad.—#7 Graduation is 16ths and 32nds on one side, 64ths and 100ths on the other with QUICK READING figures on 64ths and 100ths Grad.—#11 Graduation is 64ths on one side and 100ths on the other with QUICK READING figures on 100ths Grad.—#16 Graduation is 32nds and 64ths one side, 50ths and 100ths on other with QUICK READING figures on 50ths and 100ths Grad.



UNION STEEL RULES

NARROW TEMPERED RULE—No. 430



Graduated #10 Graduations, 32nds one side, 64ths on other.

| Length | Approx. Width | Weight, each |
|-----------------------|--------------------|--------------------|
| 4 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{1}{5}$ OZ. |
| 6 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{3}{10}$ OZ. |
| 6 in. with #11 Grad. | $\frac{7}{32}$ in. | $\frac{3}{10}$ OZ. |
| 9 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{9}{20}$ OZ. |
| 12 in. with #10 Grad. | $\frac{7}{32}$ in. | $\frac{3}{5}$ OZ. |
| 15 C/M METRIC | $\frac{7}{32}$ in. | $\frac{3}{10}$ OZ. |
| 30 C/M METRIC | $\frac{7}{32}$ in. | $\frac{3}{5}$ OZ. |

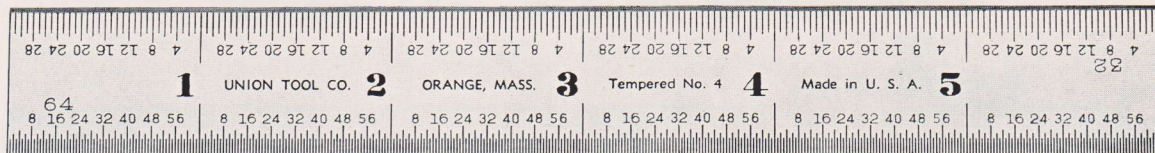
TEMPERED RULE—No. 400



Graduated #4 Graduations, 8ths and 16ths one side, 32nds and 64ths on other.

| Length | Approx. Width | Weight, each |
|----------------------|-------------------|--------------------|
| 6 in. with #4 Grad. | $\frac{3}{4}$ in. | $\frac{9}{10}$ OZ. |
| 12 in. with #4 Grad. | 1 in. | $2\frac{3}{4}$ OZ. |
| 15 C/M METRIC | $\frac{3}{4}$ in. | $\frac{9}{10}$ OZ. |
| 30 C/M METRIC | 1 in. | $2\frac{3}{4}$ OZ. |

TEMPERED RULE—No. 405



Graduated #4 Graduations, 8ths and 16ths one side, 32nds and 64ths on other.
With QUICK READING figures on 32nds and 64ths Grad.

| Length | Approx. Width | Weight, each |
|-------------------------------|--------------------|--------------------|
| 1 in. with #4 Grad. | $\frac{1}{2}$ in. | $\frac{1}{8}$ OZ. |
| 2 in. with #4 Grad. | $\frac{1}{2}$ in. | $\frac{1}{5}$ OZ. |
| 3 in. with #4 Grad. | $\frac{9}{16}$ in. | $\frac{1}{3}$ OZ. |
| 4 in. with #4 Grad. | $\frac{5}{8}$ in. | $\frac{2}{5}$ OZ. |
| 6 in. with #4 Grad. | $\frac{3}{4}$ in. | $\frac{9}{10}$ OZ. |
| 6 in. with #5, 7 or 16 Grad. | $\frac{3}{4}$ in. | $\frac{9}{10}$ OZ. |
| 9 in. with #4 Grad. | $\frac{3}{4}$ in. | $1\frac{1}{3}$ OZ. |
| 12 in. with #4 Grad. | 1 in. | $2\frac{3}{4}$ OZ. |
| 12 in. with #5, 7 or 16 Grad. | 1 in. | $2\frac{3}{4}$ OZ. |
| 18 in. with #4 Grad. | 1 in. | 4 OZ. |
| 18 in. with #5, 7 or 16 Grad. | 1 in. | 4 OZ. |
| 24 in. with #4 Grad. | 1 in. | $5\frac{1}{2}$ OZ. |
| 24 in. with #5, 7 or 16 Grad. | 1 in. | $5\frac{1}{2}$ OZ. |

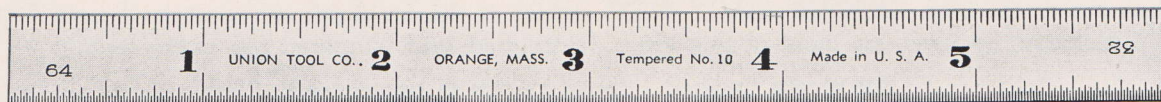
NOTE: #5 Graduation is 32nds and 64ths one side, 10ths and 100ths on other with QUICK READING figures on 10ths and 100ths Grad.—#7 Graduation is 16ths and 32nds on one side, 64ths and 100ths on the other with QUICK READING figures on 64ths and 100ths Grad.—#11 Graduation is 64ths on one side and 100ths on the other with QUICK READING figures on 100ths Grad.—#16 Graduation is 32nds and 64ths one side, 50ths and 100ths on other with QUICK READING figures on 50ths and 100ths Grad.

All Rules Packed 12 in a box.



UNION STEEL RULES

FLEXIBLE TEMPERED RULE—No. 420



No. 420 Graduated one side only in #10 Graduations, 32nds and 64ths.
Approximately $\frac{1}{2}$ wide and .015 thick.
Rule Cases furnished with 6-inch size.

| Length | Weight, Each | Length | Weight, Each |
|----------------------|--------------------|-----------------------|-------------------|
| 4 in. with #10 Grad. | $\frac{1}{10}$ oz. | 12 in. with #10 Grad. | $\frac{1}{3}$ oz. |
| 6 in. with #10 Grad. | $\frac{1}{6}$ oz. | 15 C/M METRIC | $\frac{1}{6}$ oz. |
| 9 in. with #10 Grad. | $\frac{1}{4}$ oz. | 30 C/M METRIC | $\frac{1}{3}$ oz. |

FLEXIBLE TEMPERED RULE—No. 425



6 inch size only.
Graduated #4 Graduations, 8ths and 16ths one side, 32nds and 64ths on other,
with QUICK READING figures on 32nds and 64ths Grad.
Approximately $\frac{1}{2}$ inch wide and .015 thick.
Rule Cases furnished with these rules. Weight, each $\frac{1}{6}$ oz.

FLEXIBLE TEMPERED RULE—No. 426



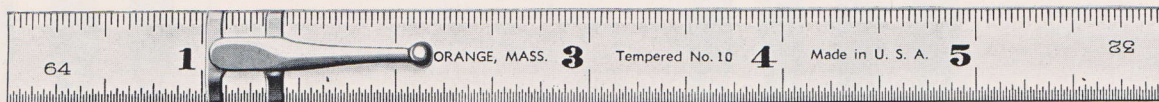
Graduated #5 Graduations, 32nds and 64ths one side, 10ths and 100ths on other with QUICK READING figures on 10ths and 100ths Grad. Also with #16 Graduations, 32nds and 64ths one side, 50ths and 100ths on other, with QUICK READING figures on 50ths and 100ths Grad.
Approximately $\frac{1}{2}$ inch wide and .015 thick.
Rule Cases furnished with 6-inch sizes.

| Length | Weight, Each |
|----------------------------|-------------------|
| 6 in. with #5 or 16 Grad. | $\frac{1}{6}$ oz. |
| 12 in. with #5 or 16 Grad. | $\frac{1}{3}$ oz. |

FLEXIBLE TEMPERED RULE—No. 426-S

6 inch size only
Graduated 32nds and 64ths one side, 10ths and 50ths on other with QUICK READING figures on 10ths and 50ths Grad.
Approximately $\frac{1}{2}$ inch wide and .015 thick.
Rule Cases furnished with these rules. Weight, each $\frac{1}{6}$ oz.

POCKET CLIPS FOR STIFF AND FLEXIBLE RULES



Clips attached permanently to rules prevent taking accurate measurements.
Our clip is adjustable and may be removed entirely from the rule if desired.
It holds the rule securely in the pocket and will not slip out.
Makes a handy little depth gauge.
Pocket Clips for Stiff and Flexible Rules, 6 inch size.

All Rules Packed 12 to the box.

UNION CHROME ALLOY PUNCHES

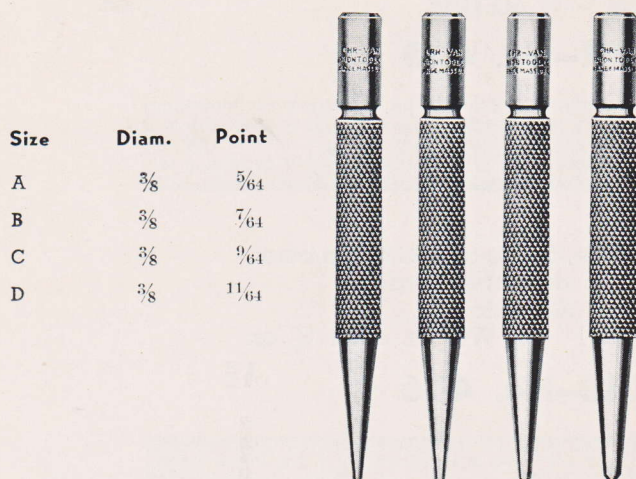
These Punches are made from CHROME ALLOY STEEL, which is the toughest, strongest, and most durable metal that can be used for tools of this kind. Hardened and tempered the entire length.

All nicely finished. Every punch is guaranteed.

UNION CHROME ALLOY CENTER PUNCHES—No. 32

Sizes A, B, C, D; 4 in. long.

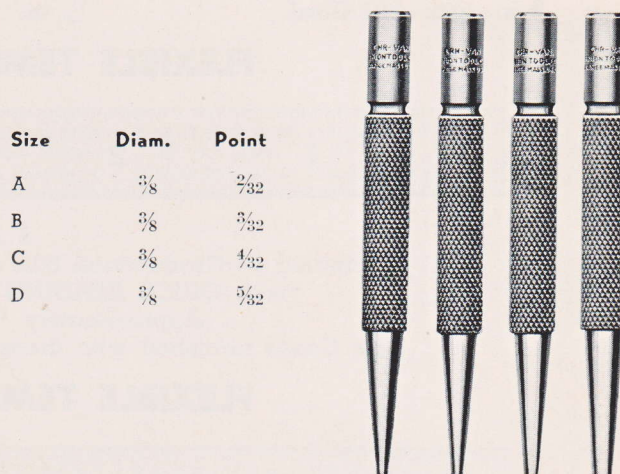
Weight approx., 1 lb. per doz.



UNION CHROME ALLOY DRIVE TAPER PUNCHES—No. 34

Sizes A, B, C, D; 4 in. long.

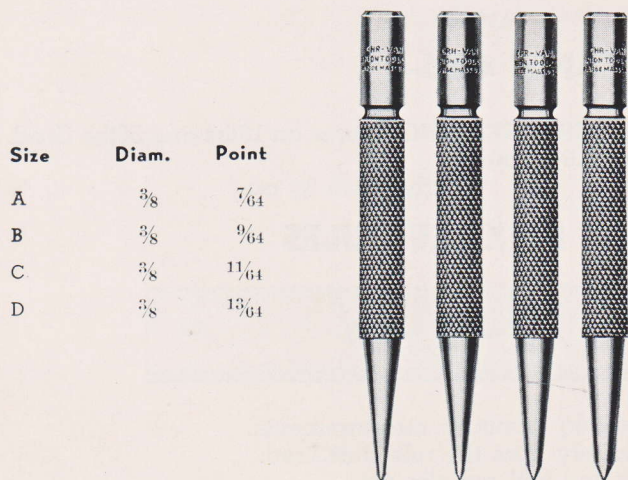
Weight approx., 1 lb. per doz.



UNION CHROME ALLOY PRICK PUNCHES—No. 36

Sizes A, B, C, D; 4 in. long.

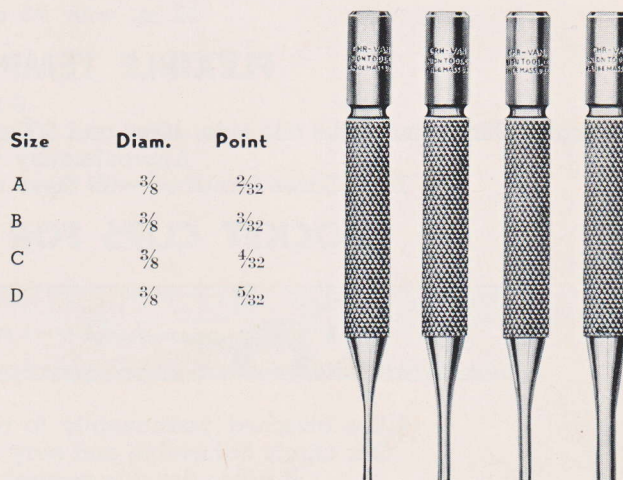
Weight approx., 1 lb. per doz.



UNION CHROME ALLOY DRIVE PIN PUNCHES—No. 38

Sizes A, B, C, D; 4 in. long.

Weight approx., 1 lb. per doz.



All Packed 12 in a box.

UNION CHROME ALLOY NAIL SETS

UNION CHROME ALLOY ROUND HEAD

NAIL SETS—No. 30

Hardened and tempered the entire length.

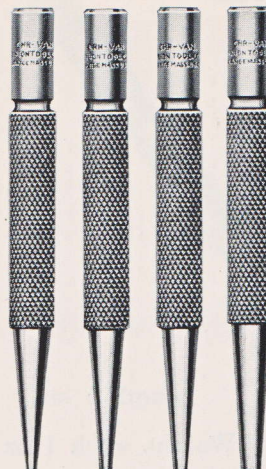
Heads and points nicely finished on all sizes.

Every Nail Set is guaranteed.

Sizes A, B, C, D; 4 in. long.

Weight approx. 1 lb. per doz.

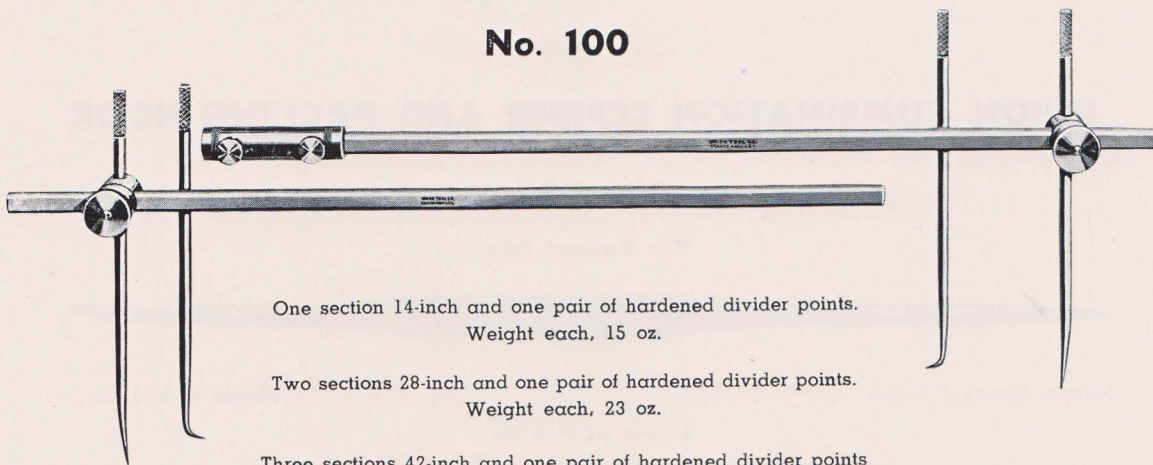
| Size | Diam. | Point |
|------|---------------|----------------|
| A | $\frac{3}{8}$ | $\frac{2}{32}$ |
| B | $\frac{3}{8}$ | $\frac{3}{32}$ |
| C | $\frac{3}{8}$ | $\frac{4}{32}$ |
| D | $\frac{3}{8}$ | $\frac{5}{32}$ |



Packed 12 in a box.

UNION ADJUSTABLE EXTENSION STEEL BEAM TRAMMELS

No. 100



One section 14-inch and one pair of hardened divider points.
Weight each, 15 oz.

Two sections 28-inch and one pair of hardened divider points.
Weight each, 23 oz.

Three sections 42-inch and one pair of hardened divider points
Weight each, 31 oz.

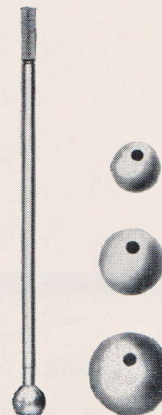
Extra beam with coupling.

Extra Pair Caliper or Divider Points

Set of 4 Ball Points and holder.
Size of Balls $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1", $1\frac{1}{4}$ "

Balls or Holder.

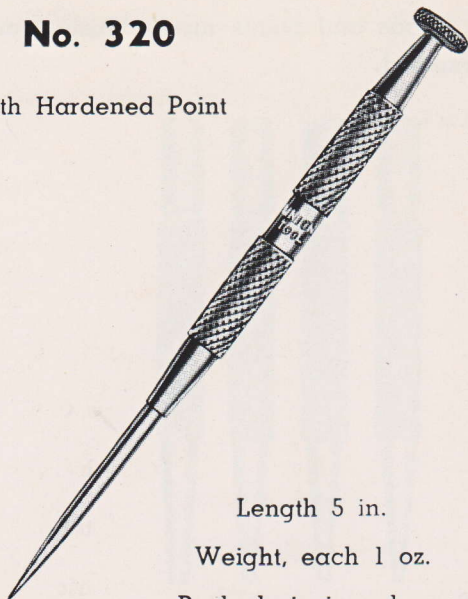
Trammels packed 1 in a box.



UNION SINGLE POINT SCRIBER

No. 320

With Hardened Point



Length 5 in.
Weight, each 1 oz.
Packed six in a box

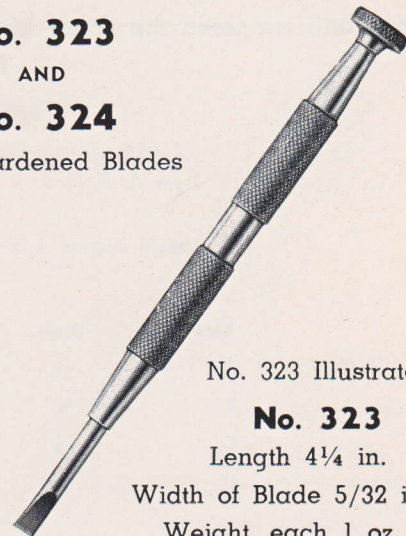
UNION TOOLMAKERS' SCREW DRIVER

No. 323

AND

No. 324

With Hardened Blades



No. 323 Illustrated

No. 323

Length 4 1/4 in.
Width of Blade 5/32 in.
Weight, each 1 oz.

No. 324

Length 5 3/8 in.—Width of Blade 7/64 in.
Weight, each 1 oz.
Both packed six in a box.

UNION COMBINATION SCRIBER AND PACKING HOOK

No. 322

With Hardened Point.



Length, Approx. 7 inches.

Weight each, 1 oz.

Packed six in a box.

UNION SCRATCH AWL OR SCRIBER

No. 321

With Hardened Points.



Length, Approx. 8 1/2 inches.

Weight each, 1 oz.

Packed six in a box.



OUR PLANT IS MODERN AND EQUIPPED WITH MACHINERY OF OUR OWN MANUFACTURE IN ADDITION TO THE MOST UP-TO-DATE MACHINE TOOLS WHICH ARE USED IN PRODUCING OUR LINE OF TOOLS

... TOOLS LISTED ALPHABETICALLY ...

| TOOL No. | NAME | PAGE | TOOL No. | NAME | PAGE |
|----------|------------------------------------|------|----------|---|------|
| 19 | Calipers, Hermaphrodite | 8 | 38 | Punches, Drive Pin | 18 |
| 14 | " Inside Spring | 7 | 36 | " Prick | 18 |
| 17 | " Inside Firm Joint | 8 | 26 | Reamers, Burring | 5 |
| 15 | " Outside Firm Joint | 8 | 27 | " " | 5 |
| 12 | " Outside Spring | 7 | 28 | " " | 5 |
| 550 | Clamps, Machinists' | 14 | 420 | Rules, Flexible | 17 |
| 552 | " " | 14 | 420 | " " Metric | 17 |
| 551 | " " | 14 | 425 | " " 6" Length Only | 17 |
| | Clips for Rules | 17 | 426 | " " " | 17 |
| | Display Cabinet | 1 | 426S | " " 6" Length Only | 17 |
| 10 | Dividers, Spring | 7 | 431 | " Narrow Hook | 15 |
| 16 | " Extension 2 Leg, Wing | 6 | 431 | " " " Metric | 15 |
| 16A | " Extension 1 Leg, Wing | 6 | 452 | " Slide Caliper | 15 |
| 16B | " Wing | 6 | 452 | " " " Metric | 15 |
| 16 | " Balls and Holder | 6 | 453 | " " " " | 15 |
| 441 | Gauges, Center, Hardened, V Thread | 9 | 453 | " " " Metric | 15 |
| 441 | " " " Whitworth | 9 | 400 | " Tempered | 16 |
| 441 | " " " Metric | 9 | 400 | " " Metric | 16 |
| 330 | " Depth | 13 | 405 | " " " | 16 |
| 330 | " " Metric | 13 | 430 | " " " | 16 |
| 331 | " Depth, Adjustable | 13 | 430 | " " Metric | 16 |
| 331 | " " " Metric | 13 | 401 | " Wide Hook | 15 |
| 444 | " Scratch | 14 | 401 | " " " Metric | 15 |
| 300 | " Thickness | 11 | 323 | Screw Driver, Toolmakers' | 20 |
| 300A | " " | 11 | 324 | " " " | 20 |
| 300B | " " | 11 | 320 | Scriber, Single Point | 20 |
| 300C | " " | 11 | 321 | Scriber, Double Point | 20 |
| 300D | " " | 11 | 322 | Scriber and Packing Hook | 20 |
| 300E | " " | 11 | 615 | Sets, Combination | 3 |
| 301 | " " Tapered | 11 | 615 | " " Metric | 3 |
| 301B | " " " | 11 | 625 | Squares, Double Adjustable with Bevel & Drill Point Blades | 4 |
| 301E | " " " | 11 | 600 | Squares, with Center Head | 3 |
| 300-S | " " Stock | 11 | 600 | " " " " Metric | 3 |
| 300M | " " Metric | 10 | 600 | " Without Center Head | 3 |
| 300AM | " " " | 10 | 600 | " " " " Metric | 3 |
| 300BM | " " " | 10 | 602 | " Carpenter's Combination, 12" Length Only | 5 |
| 301M | " " " | 10 | 602 | " Carpenter's Combination English and Metric | 5 |
| 301BM | " " " | 10 | 601 | " Carpenter's Combination 12" Length Only | 5 |
| 50 | " Thread, V | 12 | 100 | Trammels, Steel Beam | 19 |
| 51 | " " V | 12 | 100 | " Balls and Holder | 19 |
| 52 | " " V | 12 | 1000 | Tool Kit, Apprentice or Student | 2 |
| 50W | " " Whitworth | 12 | 326 | Wiggler or Center Finder | 9 |
| 50M | " " Metric | 12 | 327 | " " " " | 9 |
| 310 | Key Seat Rule Blocks | 14 | 25 | Wrenches, Tap | 9 |
| 30 | Nail Sets | 19 | | | |
| 612 | Protractor Heads | 4 | | | |
| 32 | Punches, Center | 18 | | | |
| 34 | " Drive Taper | 18 | | | |

